



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/707,993

01/30/2004

Marc Anthony Burrell

144213

1992

23413 7590 03/17/2008  
CANTOR COLBURN, LLP  
20 Church Street  
22nd Floor  
Hartford, CT 06103

EXAMINER

BOCKELMAN, MARK

ART UNIT

PAPER NUMBER

3766

MAIL DATE

DELIVERY MODE

03/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/707,993	<b>Applicant(s)</b> BURRELL ET AL.	
	<b>Examiner</b> Mark W. Bockelman	<b>Art Unit</b> 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-15,20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-15,20 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION*****Response to Arguments***

Applicant's arguments, see after final response, filed 2-13-2008, with respect to the finality of the last office action and have been fully considered and are persuasive. The finality of the last office action has been withdrawn. In addition the rejections of claims 10-15 and 20-21 under Daum USPN 6,704,600 and or in view of Richey et al USPN 4,547,892 are deemed persuasive and are withdrawn.

Applicant's arguments filed 2-13-2008 have been fully considered but they are not persuasive with respect to the rejection of claims 1, 3-9 as obvious in view of Daum USPN 6,704,600 in view of Richey et al USPN 4,547,892 or vice versa. The combination of the benefits of applying controlled pacing for CT using a real time (column 4 line 5) trigger were recognized by Richey and ability to control an implanted pacer for providing such stimulation were recognized by Daum. One of ordinary skill in the art would have recognized the benefits of performing the Richey method using the implanted pacer of a paced patient as shown by Daum for scanning the heart. The fact that Richey discards some images outside of thresholds has no bearing on whether the claim limitations are met when applicant chooses to use comprising language in the claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3766

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daum USPN 6,704,600 in view of Richey et al USPN 4,547,892. Daum teaches a scanning system along with an external controller to inject a signal to change the settings in the heart including an av delay. Although, it is not taught as asynchronous pacing or an adjustable trigger being used for tomography, it would have been obvious to use any type of pacing desired so as to achieve the necessary treatment to the patient including asynchronous. In addition, because Daum teaches the taken of sectional views to view electrode movement, it is inherent or obvious that a series of images are taken. The examiner would consider this to be tomography. In addition, other types of imaging systems are considered useful with the method and to have used such an adjustable trigger CT mechanism would have been obvious in view of Richey et al. Applicant's claimed mechanisms for changing parameters and reprogramming the pacer are obvious, well known, elements. The use of magnets, switches as well as other known transmission systems are all well known programming mechanisms.

Claims 1, 3-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richey et al USPN 4,547,892 alone or in view of Daum USPN 6,704,600

Richey et al teach the invention including the use of a scanner that is gated using an ecg. An external pacemaker is provided to pace the heart to rid the heart of irregular heartbeats so that r-r timing and delay intervals may be

Art Unit: 3766

calculated so as to acquire images in the desired phase of the heart contraction.

The trigger is adjusted in real time. While Richey et al does not explicitly state asynchronous pacing, it is clear that there is no type of feedback system is applied and thus the pacing thus driven by the external device (asynchronous) and an obvious inclusion. It would have also been obvious to have made use of an internal pacemaker that is already within the body of a patient as is the case of Daum to control the pacing so as eliminate irregular heart events.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 3766

Claims 1, 3-15 and 20-21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. Burrell in view of Daum USPN 6,704,600 and Richey et al USPN 4,547,892. Applicants' application claims differ from their patent claims in reciting a pacing injection system for inducing pacing in an implantable pacer to control the heart rate variability. Such was known in the art as evidenced by Richey who teaches controlling the heart rate using injection pacing and Daum who teaches the pacing of an implantable pacer during imaging.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark W. Bockelman whose telephone number is (571) 272-4941. The examiner can normally be reached on Monday - Friday 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Layno can be reached on (571) 272 -4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3766

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MWB

March 6, 2008

/Mark W Bockelman/  
Primary Examiner, Art Unit 3766